

Does tobacco smoking influence the occurrence of hand eczema?

Tobacco smoking is known to influence various inflammatory skin diseases and an association between tobacco smoking and hand eczema has been proposed. Meding *et al.* have examined a possible association between reported current tobacco smoking and the occurrence of hand eczema. Three occupational cohorts and corresponding controls from the general population were studied. The questionnaires used included questions on 1-year prevalence of hand eczema and questions on smoking habits. For one occupational group, hairdressers and their controls, information on amount of smoking was obtained. Results from 13 452 individuals were obtained. Of 3493 smokers, 437 (12.5%) reported hand eczema compared with 1294 of 9959 nonsmokers (13.0%) ($P = 0.51$). With regard to the number of cigarettes smoked, 22.6% of the hairdressers smoking more than 10 cigarettes per day reported hand eczema compared with 17.4% of those smoking 0–10 cigarettes per day ($P = 0.01$). Corresponding figures for the controls were 14.5% and 11.7%, respectively ($P = 0.06$). No clear association was found between 1-year prevalence of hand eczema and smoking. Heavy smoking, more than 10 cigarettes per day, may give a slightly increased risk of hand eczema. *Br J Dermatol* 2009; 160: 515–9.

Bexarotene activates the p53/p73 pathway in human cutaneous T-cell lymphoma

Bexarotene is a highly selective retinoid X receptor agonist that displays some retinoic acid receptor cross-reactivity at high concentrations. However, little is known about the signalling pathways by which it exerts its anticarcinogenic effect. The effects of bexarotene were studied in cutaneous T-cell lymphoma (CTCL) cell lines and the underlying molecular pathways of its antineoplastic effect were elucidated. Cell viability was assessed with the XTT assay. The self-renewal potential of cells was studied with the methylcellulose clonogenic assay. Flow cytometry was used to analyse cell cycle and apoptosis induction. Protein expression was determined by Western blot and immunofluorescence. Bexarotene induced a loss of viability and more pronounced inhibition of clonogenic proliferation in HH and Hut-78 cells, whereas the MJ line exhibited resistance. Bexarotene upregulated and activated Bax in sensitive lines, although not enough to signal significant apoptosis. All data point to the inhibition of proliferation, rather than apoptosis, as the main mechanistic action of the retinoid. Bexarotene signals both G_1 and G_2/M arrest by the modulation of critical checkpoint proteins. Further, bexarotene activates p53 by phosphorylation at Ser15, which influences the binding of p53 to promoters for cell cycle arrest, induces p73 upregulation, and, in concordance, also modulates some p53/p73 downstream target genes, such as p21, Bax, survivin and cdc2. Bexarotene-mediated ataxia telangiectasia mutated protein (ATM) activation suggests that ATM is likely to be the p53/p73 upstream activator. The data suggest that bexarotene exerts its effect in CTCL mainly by triggering the p53/p73-dependent cell cycle inhibition pathway, probably by upstream ATM activation. *Br J Dermatol* 2009; 160: 520–7.

Care of patients with psoriasis: an audit of U.K. services in secondary care

The British Association of Dermatologists (BAD) undertook an audit to assess the staffing and facilities in dermatology units in the U.K. with a focus on the provision of care for patients with psoriasis. Data were collected from 100 dermatology units in the U.K. for the financial year April 2005–March 2006 using a questionnaire and a web-based collection system. Only 23% (23/98) of units collected diagnostic data on outpatients, and half of these (11/23) were unable to supply details about the number of attendances for psoriasis. Seventy-seven units reported admitting patients to dedicated dermatology beds, general medical beds, or both; three-quarters of units (74/98) had access to dedicated adult dermatology beds. In 34% of units (30/87), a specialist dermatology nurse provided treatment most of the time. In 31% (29/95) of units, phototherapy was not

supervised by a named consultant. A medical physicist monitored ultraviolet output in 95% of all units (90/95). Biologics for psoriasis were prescribed in 75% (73/97) of units, with 39% (28/71) stating that they were restricted in prescribing biologic agents because of financial constraints. Units varied in their capacity to meet BAD guidelines and standards. Significant deficiencies included a shortage of specialist dermatology nurses, lack of bathing and showering facilities, and financial constraints on the prescription of biologics for psoriasis. The services of pharmacies, clinical psychologists and medical physicists are also absent or deficient in some units. *Br J Dermatol* 2009; 160: 558–65.

Nurses' perceptions of the benefits and adverse effects of hand disinfection: alcohol-based hand rubs vs. hygienic handwashing: a multicentre questionnaire study with additional patch testing by the German Contact Dermatitis Research Group

Nurses have a high risk of developing hand eczema due to hand disinfection procedures. Stutz *et al.* have investigated the perception of nurses regarding the adverse effects of hand washing (HW) and alcoholic disinfection (ADI), and obtained data on the prevalence of hand dermatitis and sensitization to alcohols and alcohol-based hand rubs (ABHR). A self-administered questionnaire survey was carried out as a pilot study (PS), followed by a modified multicentre study (MC) in five hospitals. Patch tests to ethanol (80%), 1-propanol (60%), 2-propanol (70%) and ABHR were performed in a subsample. The majority (PS 60.1%; MC 69.5%) of nurses considered ADI to be more damaging than HW. Mostly, ADI and HW were suspected to have irritant effects (ADI 79.2%/52.1%; HW 65.5%/36.2%) compared with an allergenic potential (ADI 10.4%/5.8%; HW 7.77%/3.9%). The prevalence of hand dermatitis in the MC was 13.4% by self-diagnosis and 22.4% by symptom-based questions. In 50 tested individuals no sensitization and only two irritant reactions to alcohols and three single-positive reactions to ABHR were observed, none of the latter related to alcohols. Although ADI is known to cause less skin irritation than HW, nurses perceive ADI as more damaging, resulting in: (i) a low compliance with ADI and (ii) a higher prevalence of hand dermatitis because the more deleterious HW is preferred. This may result in an increase in occupational disease and nosocomial infections. Educational programmes should promote ADI as a procedure with good efficiency and skin tolerability to reduce the prevalence of hand eczema in nurses and to enhance compliance with hand hygiene standards. *Br J Dermatol* 2009; 160: 566–73.

Cytoplasmic β -catenin is lacking in a subset of melanoma-associated naevi, but is detectable in naevus-associated melanomas: potential implications for melanoma tumorigenesis?

An excess of intracellular β -catenin protein is triggered by various genetic alterations in melanoma cell lines, and has been suggested to play a role in melanoma tumorigenesis. De Panfilis *et al.* investigated the role played *in vivo* by β -catenin in melanoma tumorigenesis. Fifty-seven consecutive cases of primary cutaneous melanomas were considered, and 15 of them were found to be associated with a melanocytic naevus portion. The naevus portion showed features of acquired melanocytic naevus (total 12 cases: five dysplastic, seven intradermal) or congenital growth pattern naevus (total three cases: one superficial, two deep). All specimens were immunohistochemically investigated for β -catenin. Virtually all primary cutaneous melanomas, including those associated with a naevus portion, showed cytoplasmic β -catenin positivity. However, the intradermal naevus portion was consistently cytoplasmic β -catenin negative, while both the dysplastic and the congenital naevus portions were cytoplasmic β -catenin positive. β -catenin stabilization alone is not sufficient to play a decisive role for melanoma tumorigenesis. *Br J Dermatol* 2009; 160: 601–9.